

University Submits 11 Proposals to Networks of Centres of Excellence Program

Through the Networks of Centres of Excellence program, the federal government plans to award \$240 million over the next four years to multidisciplinary teams of researchers from universities and colleges across Canada.

Approximately 15 research networks will be funded, each drawing an average of \$4 million per year.

Letters of intent from 247 teams were submitted in September, and 30 November is the deadline for final proposals. Projects will be judged primarily on the excellence of the research team and of the science involved, but also on networking and industrial relevance.

Approximately 75 proposals involve University of Alberta

scientists to varying degrees.

Funded projects will be administered from the project director's institution, but other research nodes may carry equal or higher amounts of the funding share.

Brian Dunford, who is coordinating the proposal process on behalf of the Vice-President (Research), believes this program will create a valuable infrastructure by encouraging scientists from different perspectives to work together over a long period. "Collaboration is the wave of the future," he says.

Dr. Dunford sees nothing to fear from developing more formalized links with industry. He points out

that much research initiated on this campus has spun off as soon as an industrial component developed, and a good patent policy protects intellectual property. As Dr. Dunford sees it, "This is creating jobs. It's creating wealth. It's helping us to compete in the modern world. Rather than being something to fear, I think it's something to be encouraged."

The 11 proposals being submitted from the University of Alberta are listed below, along with the local contact persons.

- Hydrocarbons Energy Research, L. Hepler
- Literacy and Illiteracy in Canada, F.J. Morrison
- *Brassica juncea*: Canada's Future

Oilseed Crop, M.S. Spencer

- Sequencing the Yeast Genome, J. von Borstel
- Polar Science and Technology Research, R.W. Wein, G.S.H. Lock
- Advanced Instrumentation for Radio Astronomy, D. Routledge
- Hydrothermal Geochemistry, P.R. Tremaine, K. Muehlenbachs
- Molecular Recognition of Cell Surface Carbohydrates, O. Hindsgaul, R.U. Lemieux
- Analytical Spectroscopy, G. Horlick, B. Kratochvil
- Drinking Water Quality and Technology, P.M. Huck, S.E. Hrudey
- Microsensors, J.D. Harrison, L. Ristic.□

Last Chance for the United Way

Our United Way campus campaign closes at the end of this month.

By the time this issue of *Folio* went to press, gifts from generous donors amounted to close on \$80,000.

These contributions help in so many ways.

Through home visits, adult day programs and footcare clinics, the Victorian Order of Nurses brings peace and improved health to people in crisis and to the elderly throughout our community.

The Family Service Association's self-help groups and counselling programs offer guidance for people and families under stress who want to learn how to cope positively with their problems.

A boy from a single parent family can find the role model he needs so much through the Uncles at Large matching program.

These are only a few of well over a hundred programs funded by the United Way. But they all have two essential ingredients in common.

The first essential is the volunteers, who do so many of the important tasks in the agencies and who are vital to the programs. It's their unstinted service that helps reduce costs to the minimum.

Money, of course, is the other ingredient that helps the wheels go round.

Will you help us raise the \$60,000 still needed to reach our campus goal of \$140,000?

There's a donation form on the back page of this *Folio*. If you tear it off, fill it out, and send it through campus mail to the Comptroller's Office, you will make a difference to the lives of more than a quarter of a million people in our community.□

University of Alberta

FOLIO

University of Alberta

24 November 1988



June Callwood, awarded an honorary degree, 17 November, told graduates, "Don't lose your idealism. Grasp the first opportunity to do good. Hold yourself to an ideal of conduct." Story on page four.

Your Chance to Burst Into Print

Got a favorite Christmas story, anecdote, parable, aphorism, witticism, or flight of fancy that you'd like to share? The 22 December issue of *Folio* will be one of seasonal cheer and we at Public Affairs invite you to contribute to the festivities.

Send your (signed) material to: Office of Public Affairs, 423 Athabasca Hall (MTS - TJMH, PROFS - ZZOPA, FAX - 432-2997). Deadline: 9 December.□

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- Alta Nova Piano Trio's debut at hand



Folio 24 November 1988

Edmonton Historical Board Recognizes Corbett Hall

The Edmonton Historical Board has been placing plaques on local buildings and sites since 1974. The tradition continued on 16 November at Corbett Hall when Georgia Baird and Ken Tingley, representing the Board; David Barnett (Drama) and Myer Horowitz, representing the University; and Wanda Wetterberg, representing the City of Edmonton, unveiled a handsome plaque on the stage of Studio Theatre.

"The story of Corbett Hall is one of public service and progressive education for almost six decades," Mr. Tingley told the audience. In

conjunction with the 40th anniversary of Studio Theatre, Professor Barnett spoke fondly of the 148 productions mounted by the Department of Drama in its 30-year association with Corbett Hall (the department had been ensconced in quonset huts before then). "There were two productions elsewhere but we didn't like it so we came back here," Professor Barnett said.

The department is now in the Fine Arts Building, but "much of our spirit and soul stayed here. We like this theatre . . . it's warm, hospitable . . . it even smells like

an old-fashioned theatre."

A total of 1,257 students have received training in the dramatic arts since the beginnings of Studio Theatre.

President Horowitz accepted the plaque on behalf of the University and recalled that he spent one year in Corbett Hall in the late 1950s (he was pursuing an MEd degree and the Faculty of Education was based there). He also expressed hope that the "pretty massive reconstruction" of Corbett Hall will start fairly soon (the plaque will be mounted in the main entrance on the west side of the building).□

Are You Fit, Fitter, Fittest?

Want to know how fit you are?

You can find out at the end of November by taking part in a free test of aerobic fitness organized for everyone at our University by Campus Fitness and Lifestyle.

The test is simple. You just *walk* or jog or run (which ever you prefer) around the Pavilion track as many times as you can in 12 minutes. There'll be a number of starting points, and you'll keep track of your own laps.

Just for showing up, you'll be rewarded with a score sheet to compare your results to age-related norms. You'll also receive a certificate, pretty enough to frame.

If you took part in the first run-walk in October, here's your chance to see how you have improved.

If you didn't test yourself in October, this is another chance to find out your fitness level—and see where you want to go with it in the new year.

The test is called the Cooper Test of Aerobic Fitness. You can take part in it on 29 or 30 November, noon to 1 p.m. or 4:30 to 5:30 p.m..

Make a date with yourself for fitness and pre-register at the Campus Fitness and Lifestyle office, W-90 Van Vliet Centre.

Or just turn up at the track, ready to go.

For more information, call 432-2781.□

Housing and Food Services' Tripleheader

Housing and Food Services recently invited students and staff to participate in the "1988 Great Pumpkin Carving Challenge." A total of 38 elaborate entries at the CAB Cafeteria and Lister Dining Hall made judging very difficult.

First place went to Campus Security for a display called "Campus Five 0." Other winners

were: Diane Gallad (2nd place), the Department of Microbiology (3rd place), and the 9th Floor Kelsey Residence (4th place).

Congratulations to all.

We also see that Housing and Food Services contributed \$740 to the United Way's Coffee Day, 4 November.

"This is an excellent opportunity

for University departments to get involved in a very worthwhile cause," said Marketing Manager Joe Winter. "We would certainly like to be part of Coffee Day next year."

Housing and Food Services also announces the opening of the Marina at Lister Hall. In addition to serving breakfast, the Marina specializes in short order and late night "Wild Pizza" service.

Trencherpersons can also sample gourmet coffees and daily fresh baked pastries.

The Marina's hours are 7 a.m. to noon.□

FOLIO

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Office of Public Affairs
423 Athabasca Hall
University of Alberta
Edmonton, Alberta T6G 2E8
(403) 432-2325.

MTS - TJMH
PROFS - ZZOPA
FAX - 432-2997

All enquiries and
correspondence should be
directed to:

Ron Thomas
Editor

Public Affairs produces *Folio*
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staff and other interested
persons.



University
of
Alberta

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photo/University of Alberta/OPA

Anatomical Treatment at Sports Medicine Clinic Covers Everything but Zamboni

The value of teamwork was underscored at the official opening of the Glen Sa Sports Medicine Clinic last Friday. Among the players who "suited up" were (to right): Gerry Glassford, Dean, Physical Education and Recreation; President Myer Horowitz; Glen Sather, Edmonton Oilers GM and coach; Peter Pocklington, owner of the Oilers; and David Reid, Clinic Director.

President Commends 3,000 Members of Support Staff

President Myer Horowitz delivered the following address to Fall Convocation, 17 November.

This week we are setting a record at our University. When the 730 individuals who are graduating today are joined by 911 others on Saturday, the total for the two Convocations this November is greater than last Fall's previous high by about 75. During this calendar year, an all-time record of 6,032 students will have graduated from our University. This number takes on added meaning for me when I recall that it exceeds the total enrolment at this University when I was a graduate student 30 years ago. To each of you graduating this afternoon, and to your families, I extend my warmest congratulations.

Over the years I have taken advantage of my Reports to Convocation to comment on our students, our instructional and research programs, our faculty, our relationships with governments, and the funding of our institutions. Today I want to focus on the more than 3,000 members of our University community who make important contributions to the students, academic staff and instructional and research programs—our dedicated support staff, most of whom are members of our Non-Academic Staff Association.

Many people assume that my first employment at the University of Alberta was when I was appointed Professor and Chairman of Elementary Education in 1969. Actually, I was a member of the support staff back in 1958. As a part-time and temporary accounting clerk my status was not particularly high and my remuneration at \$1.50 per hour reflected the relative value of my position. I want you to know, however, that my hourly wage was adjusted part-way through the year and while the new rate of \$2.10 per hour may not seem great, it was an increase of almost 50 percent!

Our non-academic staff include administrative assistants, secretaries and office clerks in numerous academic and support departments, tradespeople, technicians, laboratory technologists, food service and housing workers, security personnel, programmer analysts, and many others in the 400 different job classifications. These people support the instructional, research and service programs. The University could not function without them.

Administrative assistants in the Faculties and departments, for example, participate in the planning, development and implementation of academic programs. The administrative assistant often provides a link within the University community and, at times, with the outside community.

The specialist technician is a different, but equally important, role. Ours is a research-intensive university, the largest research centre in Alberta and one of the largest in Canada. Often the specialist technician is the technical expert who maintains up-to-date information on new techniques and equipment.

The security officers on campus cooperate extensively with local law enforcement agencies in crime prevention and investigation. Their major contribution is in maintaining a safe environment for students, staff and visitors.

I have referred to administrative assistants, specialist technicians and security officers. I could make similar points about the numerous other job categories.

Unfortunately, while our enrolment has increased by about 40 percent since 1980, the size of our support staff is similar to what it was then and about 3 percent smaller than it was in 1984. Too often we have dealt with budget realities by decreasing the number of support staff positions and some of the time, more often than I would have liked, the positions we have deleted were not vacant and so individuals have had to be released. To reduce the number of our staff who would have been affected by layoffs last year, we introduced an early retirement program with a special financial incentive similar to what the provincial government made available for its employees. Consequently, we have had a particularly large number of retirements. You will recall, Mr. Chairman of the Board and Mr. Chancellor, that at our retirement dinner last Spring we honored 140 members of our support staff, as well as a good number of academic staff. The 140 non-academic employees who retired in 1987-88 represented 2,455 years of service to this institution, an average of 17.5 years of work on the part of each individual support staff member who retired.

Let me tell you about a small number of these people:

— Mrs. Mary Neden, my administrative assistant who worked with me for more than

12 years and who served our University, and faithfully, for 21 years;

— Dorothy Beckwith, who during her 30 years at the University served five Deans of Education, including myself, as secretary and administrative assistant;

— Frank Austin, the superintendent for a number of buildings, including the one in which I work, who retired after 26 years of service;

— Fred Jubsch and Henry Ziegler, both supervisors in the equipment room in our physical education complex, who retired after 27 and 29 years, for a total of 56 years between them;

— Mrs. Elsie Mayer, who first came to the University in 1951 as a worker in Housing and Food Services and who retired 36 years later as a building services worker.

Just last week I sent a letter of thanks and congratulations to Vera Ternovy who retired last month. For several years she was the caretaker of my office and of others in University Hall. She seemed to know how to reduce my stress level and I enjoyed talking to her about matters that concern most of us in our daily lives. She saved many difficult days for me as she shared her optimism and displayed her loyalty to our University. When she began working here in October 1968 she was one of the first lady caretakers. By the time she retired she had worked in about half a dozen

buildings. Needless to say, she was familiar with the operation of our physical facilities. She was also a perceptive observer of human behavior.

Sensitivity Must Continue

We have tried to be a fair employer. Unfortunately, we have not always succeeded even to our own satisfaction, let alone to the satisfaction of our employees. And so we must continue to aim to be sensitive to the needs and interests of our non-academic staff who represent such a key segment of our University community.

About ten years ago our University Senate, which you now chair Mr. Chancellor, had a task force on the Status of Women at the University. While the Report of that task force was concerned with academic staff, one of the recommendations was that there should be a study of the status of female members of the non-academic staff.

Our Board of Governors, back in December 1980, endorsed the important principle that we aim to be more fair to individuals of both sexes with regard to their employment, their remuneration, their training and development, and their possible promotion. The Board decided that a study should be conducted to gather data and to monitor the level of success of the implementation of this equity policy.

We turned to a consulting firm, which conducted the study on

Continued on page eight

The University of Alberta is proud to present the
John A. Allan 75th Anniversary lecture in Science

Dr. F. Kenneth Hare

respected geographer and atmospheric scientist who will address the topic

"Science Policy and Uncertainty in the Environmental Arena."

Dr. F. Kenneth Hare, Chancellor of Trent University in Peterborough, Ontario, is an active participant in the government process of analyzing public policy issues involving science. He is a member of the Board of Directors of the Canadian Institute for

Research in Atmospheric Chemistry, and a former commissioner of the Ontario Nuclear Safety Review. Recent honors include Companion, Order of Canada; and the International Meteorological Organization Prize.

Tuesday, December 6, at 4 p.m.

The lecture will take place in the Humanities Centre,
Lecture Theatre 1,
University of Alberta



University of Alberta
Edmonton

Admission is free and the public is encouraged to attend.

The five-year lectureship series is a gift of the Alberta Research Council and was initiated in 1984 to commemorate the University of Alberta's 75th Anniversary.

June Callwood Tells All She Knows

The best graduation speeches are short, said June Callwood, delivering the Convocation Address, 17 November.

"I am going to tell you everything I know and it will take less than 10 minutes," the honorary degree recipient told graduates of Graduate Studies and Research, Science, Medicine, Medical Laboratory Science, Pharmacy, Nursing, Rehabilitation Medicine, Law and Dentistry.

An active social advocate who has done much to help improve the lives of people in need, Ms. Callwood reminded her audience, "None of the fundamental problems of life can be solved. You must find the choice that is the least awful."

And in the next breath, "Red wine stains cannot be removed with white wine. It's best to drink the white," she went on, eliciting roars of laughter and applause.

For the next ten minutes (or

less), the author and journalist humorously offered her delighted audience a variety of philosophical statements.

"No relationship is entirely fair. The wind is always against you when you ride a bicycle. The nature of evil is apathy: if you don't interfere when you observe injustice, you are part of the injustice. There is no reason not to give good consideration to celibacy—when you consider that the alternative is a latex condom. You will never grow up completely until you forgive your parents. Everyone has a core of utter loneliness. Remember that and you will never meet a stranger. Malice comes easier than compassion because it does not require thought."

And finally, "Listen for the voice of the shepherd within. Everyone has the still, small voice within. Within everyone there is good news." □

Boursière Pour Un Stage En France

Pour la première fois, une étudiante de la Faculté Saint-Jean a été la récipiendaire de la bourse "Connaissance de la France" offerte par le Consulat général de France à Edmonton.

Colleen Rathwell, étudiante en éducation, a bénéficié d'un merveilleux stage en France afin d'y découvrir le patrimoine architectural et historique de la Seine-et-Marne.

Les boursiers, quatre Canadiens,

trois Algériens et trois Français, étaient entièrement pris en charge par les autorités françaises pendant la durée du stage. Ils étaient néanmoins responsables des frais de voyage pour se rendre à Paris.

Après avoir passé quatre jours au Centre international de séjour à Paris, ils se sont rendus à Meaux, Seine-et-Marne, où ils ont été hébergés au Centre d'accueil de Chaage. De là, ils ont passé plusieurs jours à visiter des châteaux, des musées et des églises.

Les impressions de Colleen Rathwell? "Ce séjour en France a été fantastique! Je veux absolument y retourner. Tout le monde était tellement gentil."

Espérons que d'autres étudiants albertains auront également l'occasion de faire cette merveilleuse "Connaissance de la France", et remercions les autorités françaises de leur générosité. □



Colleen Rathwell



AMOCO Strengthens Relationship With Engineering Faculty

Fred Otto, Dean of Engineering, accepts AMOCO Canada Petroleum Company Ltd.'s donation to the Faculty of Engineering from Arden J. Berg, District Manager of AMOCO. AMOCO has awarded the Faculty a fellowship to support graduate study in petroleum engineering, an undergraduate scholarship for a student entering the final year of a petroleum-related program, and funds to establish a mud-properties laboratory associated with the BSc program in petroleum-related engineering. In addition, AMOCO has made a generous donation to Engineering's 75th Anniversary Fund-raising Campaign in support of the George Ford Chair in Materials Engineering. Pictured with Mr. Berg and Dean Otto are Ron Gray (extreme left), Development Officer, Faculty of Engineering; Alex C. Braun, District Engineer, AMOCO Canada; Stewart J. Kennedy, Associate Dean, Student Records, Faculty of Engineering; and Jerry M. Whiting, Chair, Department of Mining, Metallurgical and Petroleum Engineering.

page four, Folio, 24 November 1988a

Professional Development for APOs Information Sessions

UNIVERSITY COMPUTING SYSTEMS

Bruce Miller, Director, University Computing Systems, and his Associate Directors will discuss the organization of the department and the services which it provides.

DATE: **Tuesday, December 6, 1988**
TIME: 11:00 a.m. to 12:00 noon
PLACE: Council Chamber, University Hall

While these sessions are directed at APOs, other interested staff are welcome, space permitting.

Pre-registration not required.

For more information, contact:
Mrs. Eva M. Cherniavsky
Administrative Officer (Academic)
3-13 University Hall
(ext. 4588)

Profile: Peter Lea, Scientific Glassblowing Services

"Every day somebody comes in wanting something entirely different and you're not sure whether you can make it or not." That challenge is the best part of the job, says Peter Lea, senior glassblowing instrument maker.

Lea apprenticed in Manchester at the Shirley Institute and Manchester College of Technology and worked at a British commercial firm before coming to the University of Alberta in 1965. He and a co-worker manufacture all the complex, made-to-order scientific apparatus for more than 60 University departments, the Alberta Research Council, provincial and federal governments, and private companies.

Lea says that when "someone thinks something up and through you're skills you're able to do it," it's satisfying. "You know a lot of these people are working on frontier projects and you're able to make your small contribution to science," he reflects (he made Electrical Engineering's first laser tubes in 1969).

Researchers in biochemistry, zoology, pharmacy, physics, engineering and medicine can buy commercial beakers and flasks, says Lea, but they consult with him to design and create unique equipment.

Not few people realize how many factors he considers when he's translating a researcher's ideas into a completed, functional piece. A basic understanding of the experiment is helpful. Glass walls may have to be thin enough to facilitate heat exchanges; tubing just the right length to do the job; yet he's concerned with structural strength, explains Lea. Function dictates glass purity and that determines what kind of glass he chooses from the hundreds available. And the experiment temperatures make a difference too. "They have a habit of sticking glass in liquid nitrogen and that's 173° below 0," he comments.

Scientific Glassblowing Services produces about 100 items a week, ranging from large, heavy, elaborate vacuum chambers to simple frosted tubing. Lea recalls the most unusual order he's filled. A researcher was going to the Arctic to measure the energy level of microbes in the soil. "I made him a set of syringes. The outside diameter was 1 mm, the plunger rod less. They were 1 cm long, eggshell-walled, and they had a counterbalance on the bottom, weighted so in a saline solution they neither floated nor sank." The



Peter Lea: creator of unique glass instruments.

scientist's American colleagues on Baffin Island were intrigued, reports Lea, smiling, because "he was able to take his whole laboratory out of a matchbox."

The stress can build for Lea when he's trying to keep molten glass at the right temperature, under time pressure to seal portions before it cracks. And the heat involved in assembling components is fatiguing. To relax, Lea and his wife, Rosemary, a senior supervisor with Alberta Health Care, are avid riders. Lea enjoys 12-mile rides on his thoroughbred Misty Dawn about four times a week and competes in jumping and English equitation shows. He's also president of the Killerney Manor Riding Club and "one of the few males in Alberta who rides English." □

Planning for Next 'Canada, the World and the Future' Already Under Way

The 1988 edition of "Canada, the World and the Future" has concluded, but organizers are already putting out feelers for next year's edition.

"The theme is 'The Environment and the Economy,' and we're going to attempt to attract people of international stature," says Christian Janssen.

Dr. Janssen (Finance and Management Science), chair of the organizing committee for the 1989 conference, welcomes suggestions from the University community. □



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Folio

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Folio is the official news publication of the University of Alberta, published every Thursday throughout the year (except for July and August when it appears bi-weekly). It has a regular distribution of 9,000 of which 7,800 copies are circulated to teaching and support staff, to graduate students and to other interested people on campus. The remaining copies are sent to provincial and municipal government personnel, news outlets, and businesses and people off-campus.

Sizes and rates

The basic unit size is 27 agate lines x 23 picas (3 7/8" x 2"). The full page is divided into 10 such units, any combination of which is available at a cost of \$35 per unit (minimum 1 unit). Half page cost: \$175. One column cost \$87.50. There is a 15% discount for University departments. A 10% discount is offered for five or more consecutive insertions.

Other specifications

Half-tones (100-line screen or less) are acceptable; no color or bleeds. Camera-ready copy is necessary; there is a charge of 30c per word for typesetting, and \$7.50 for adjustment of design work.

Deadlines

Deadline for submission is 3 p.m. one week in advance of desired publication date. Acceptance of advertisements and positioning are at the discretion of the Editor.

For more information, telephone (403) 432-2325 and ask about *Folio* display advertising, or write to:
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'Managing' Toxic Waste

Margaret Ann Armour, University of Alberta chemist, researcher and expert in hazardous waste disposal, is concerned with the bits and pieces of chemicals left over at the end of the day in school and university labs. Drug residues left in vials in hospitals and pharmacies worry her too.

Many of these "leavings" are toxic or flammable or environmentally polluting, or even potentially carcinogenic. They are hazards to health and the environment, and it's dangerous to leave them lying around as powders or filings or liquids. It's also dangerous to pour them down the sink, or drop them in the wastebin.

But it's uneconomic to have the hazardous waste contractor come to the door every week to pick up one small parcel of dangerous substances.

The best solution, says Dr. Armour, would be to have the person who creates the toxic waste "manage" its disposal.

But what treatment is safe for

which chemical?

Dr. Armour was asked this question so often that six years ago, with a team of co-researchers, she began looking for safe ways to dispose of left-over chemicals and drugs right at the lab bench or nursing station where they'd been used. And the results of that research are now available in two books containing precise directions on how to dispose safely of more than 300 chemicals.

"We wanted to develop methods we were absolutely sure would work. We wanted to end up with something non-toxic you could throw down the drain. And we also wanted to give exact quantities and times and precise instructions so anybody could follow the procedure," says Dr. Armour.

Solutions the researchers came up with were to use silicates to convert heavy metals (lead, cadmium, antimony) into harmless, insoluble salts; and to break down molecules

in solvents and liquids (particularly chemotherapeutic drugs), neutralizing the potentially dangerous components (often with ordinary household bleach), then testing that the residues are no longer capable of causing genetic damage.

"For the chemotherapeutic drugs, we've tried to find really practical procedures. A method that can only be used in a lab isn't very practical in hospitals and doctors' offices," says Dr. Armour, whose goal is to have safe disposal of left-over hazardous chemicals become normal routine that every user carries out at the work station at the end of the day.

The two information and disposal guides co-authored by Dr. Armour are *Hazardous Chemicals* (now in its third edition) and *Potentially Carcinogenic Chemicals*. Both books are updated regularly and are available from Terochem Laboratories, Edmonton.*□

Chlamydia—More Common Than Gonorrhea

University of Alberta molecular biologist Wanda Wenman is working towards the design of a vaccine against chlamydia, a sexually transmitted disease (STD) that affects more people than gonorrhea.

Chlamydia causes trachoma—one of the leading causes of blindness in the world—and is also a common cause of infertility (now a problem for one couple in every five in the industrial world).

Chlamydia is widespread in North Africa and the Far East. In the U.K. and Scandinavia (where close statistics are kept on the disease) it infects twice as many people as gonorrhea, and in Scandinavia it is the most common cause of infertility and pelvic inflammatory disease. In the U.S., figures vary from an

infection rate of 4 percent in some college students to 15 percent in inner cities, and 25 percent in STD clinic patients.

Although the disease is "perfectly curable with antibiotics," Dr. Wenman says, a very real problem is that it is difficult to diagnose accurately and until the late stages is virtually symptomless. In North America, and particularly in women, it tends to be a simmering infection. A lot of harm is done before abdominal pain finally sends a woman to her doctor, and by that time the damage is probably irreversible.

At present, accurate diagnosis procedures are expensive and time-consuming and, in any case, are not available everywhere.

Dr. Wenman believes that the development of better diagnostic tools, and prevention through vaccination are the ways to control the disease, particularly in areas where there's a high rate of infect

"But designing a vaccine won't be simple," she says. "First we have to understand how this unique little bug operates—it's very sophisticated in the way in which it evades the body's defences and attacks."

Dr. Wenman's work is supported by the Alberta Heritage Foundation for Medical Research and the Medical Research Council of Canada. She also has research contracts with a major vaccine company, Institut Merieux.*□

* Stories reprinted from *Research Report*, published quarterly by the University's Office of Public Affairs.

Technical Seminar Series

Seminar III.2

This is the second seminar in the third series of technical seminars to increase staff awareness and appreciation for the work of scientists at the Alberta Research Council.



Topic:

Advanced Materials: harbinger of the future

Speaker:

Dr. Robert B. Heimann
Research Manager, Materials Section
Materials and Testing Department

Date:

Tuesday, November 29, 1988

Time:

1:00 p.m.

Location:

Auditorium
Alberta Research Council
250 Karl Clark Road
Edmonton, Alberta

Alta Nova Piano Trio First Permanent Ensemble of its Kind in City

A love of chamber music and a certain intangible "musical sympathy" have brought together three leading musicians with extensive international performing experience. The newly formed Alta Nova Piano Trio is the first permanent ensemble of its kind in Edmonton.

Cellist Tanya Prochazka, pianist Helmut Brauss and violinist Norman Nelson, all faculty in the Department of Music, stress the importance of having a resident trio that plays together on a continuing basis. "It's a huge commitment," acknowledges Ms. Prochazka, "but otherwise lives just get chaotic and it won't be a priority."

However, it's not just a matter of putting any three musicians together, no matter how talented. "There has to be some rapport between them," explains Professor Brauss. "Music is like a language. If you speak the same dialect, it's unimportant which words you use."

These European-trained artists have varied backgrounds. Helmut Brauss, from Heidelberg, made his international concert career debut in New York in 1957. Since his appointment to the University of Alberta in 1969 as a professor of piano and chamber music, he has



The players-Prochazka, Nelson (left) and Brauss-are at once energized and relaxed.

continued to perform and conduct masterclasses around the world. He has to his credit more than 1,500 recitals, solo appearances with orchestras, chamber concerts, and radio broadcasts throughout Europe, the British Isles, Scandinavia, the United States, the Pacific Rim and Canada, as well as seven recordings.

Dublin-born Norman Nelson trained at the Royal College of Music in London and became the assistant concert master of the London Symphony at 24. He came to Canada in 1965, was appointed

concert master of the Vancouver Symphony, and founded the Purcell String Quartet, which travelled world-wide. A professor of violin and chamber music at the U of A since 1979, Nelson has since also performed as a soloist throughout Europe and the Pacific Rim.

As a student, Melbourne native Tanya Prochazka soloed with the Melbourne and Sydney Symphonies. She received her degree in music from the Paris Conservatoire, went to Vienna in 1974, and performed with chamber

groups throughout Europe and the Middle East. Moving to London in 1978, she continued her concert schedule while teaching at the Royal Academy and Guildhall School of Music. In Edmonton since 1986, she has performed with chamber groups, recorded for CBC, soloed with the ESO and has been teaching cello and chamber music on campus.

As the Alta Nova Piano Trio, these acclaimed performers will play the great chamber music masterworks as well as contemporary selections. "We have an enormous repertoire to choose from," reflects Professor Nelson. "Just about every composer has put his deepest expression into chamber music."

Alta Nova's debut will be at Convocation Hall, Sunday, 27 November, at 3 p.m. The "pillar" of the concert will be Beethoven's "Archduke Trio", op.97, B-flat major, "a philosophic statement, representing the peak of Beethoven's writing for trio," framed by Haydn's E-flat major HobXV:30, "a classical work in a lighter vein," and Smetana's op.15, G-minor, "a big romantic work with strong audience appeal," explains Brauss. No admission will be charged and the concert will be taped by CBC for broadcast at a later date. □

Arts Forecast: Muhlstock and Snow

While retrospectives of Louis Muhlstock's work have been held in Eastern Canada, "This is the first one in the West," noted Chancellor Tevie Miller, shown here with Dr. Muhlstock at the opening reception 17 November at FAB Gallery. (Side by side with "Louis Muhlstock: Drawings" is the exhibition "John Snow: Printmaker.")

The Muhlstock pastels and charcoal drawings in the Department of Art and Design show are on loan from local private collectors, including Chancellor Miller, a long-time patron. These figure studies by one of Canada's supreme draughtsmen display his economical style and sure control.

The works by John Snow, renowned sculptor, painter and pioneer in contemporary Western Canadian printmaking, include woodblocks and color lithographs and life images in which he explores the layering of vibrant color, textures and shapes.

The exhibitions run until 11 December. □



Support Staff

Continued from page three

"The Status of Non-Academic Women". Its report was forwarded to us in July 1982. Clearly, the situation here was no worse than in other public and private institutions and firms, and a good deal better than in most, but I and others were troubled by what we were told:

- That on the average, the salaries of female employees were lower than those of male employees, and that this was so in all occupational groups;
- That there were differences in salaries paid to male and female staff in identical job titles and when their services appeared to be approximately equal;
- That almost 90 percent of our full-time female staff filled positions at the lower levels of our salary grid and that that percentage was almost double what it was for full-time male staff at the lower levels;
- That in Housing and Food Services the three highest salary job categories were filled by only men while the three lowest were filled entirely by women;
- That a pattern somewhat similar to that in Housing and Food Services was found among building workers.

The Report argued that it was critical that the University have in place a defensible and objective job classification program.

We realized that we had a serious problem that demanded attention. As long ago as June 1985 I indicated at Spring Convocation the determination of our Board to improve the situation. On that occasion I said: "Our Board has taken initiative and has encouraged the administration to determine if there are discriminatory practices—real or perceived—in relation to our non-academic staff."

In the Fall of 1985 a second firm of consultants began a study with the aim to develop a new job evaluation and pay administration program for all support staff. The Report "A Program To Provide Pay Equity" was forwarded to us this past June.

Jobs have been evaluated not only in relation to market forces but also with regard to difficult value judgments such as the level of complexity of the work assignments, the level of education required for the position, the length of time required to learn the essential skills and techniques, the seriousness of potential errors in judgment, the nature of contacts with people inside and outside the University, the degree and severity

of physical and mental exertion, the extent to which the job environment is agreeable or disagreeable.

The value of a job is difficult to determine. In one important sense, I believe, all honest work must be valued. I am not prepared to say, for example, that my father's work as a cabinet maker was any less important than mine as a school teacher and a university president. Of this I am certain—his commitment to excellence in what he did and his pride in the products of his labor could not have been greater.

Let us acknowledge the obvious: that the task of determining the appropriate pay for a particular job, when all work is valued, is not an easy one. In an essay he wrote in 1865, John Ruskin raised these questions: "Which of us . . . is to do the hard and dirty work for the rest - and for what pay? Who is to do the pleasant and clean work, and for what pay?"

I recognize, of course, that work of equal importance may be valued differently. In determining the relative value of one job in relation to other jobs we take into account the matters to which I referred earlier. We must remember that because in the final analysis the decisions are human ones. We should be prepared, and we shall be, to review the initial classification of positions in the new system.

Pay Increases

About a third of our staff will be receiving increases in pay because they are now below the new range of rates. Another third are now above the new range, but none of these individuals will experience a reduction in salary. Indeed, those staff members in this category who are 60 years or older will continue to receive adjustments based on the former scale. The others will also receive increases, but only a percentage of the negotiated annual salary adjustment. We recognize that it may take seven or more years to move some of these individuals from the older to the newer grid.

It follows that if initially some staff members receive increases in pay but nobody experiences a decrease, there will be a cost in the implementation of this scheme. During each of the last two budget years, we have placed \$350,000 in reserve. A similar allocation for next year will provide us with approximately \$1 million that is required.

Is \$1 million for this purpose excessive in an annual operating budget approaching \$250 million? Some say "yes" and I respect that view. Each dollar spent on one

project is a dollar we do not have for a competing one. Our decisions have been particularly difficult to make because during this same period we have incurred deficits in our operating budgets. It could be argued, and it has been, that had we not placed the high priority that we did on our equity pay program, our deficit last Spring and the projected deficit for this year would have been lower. The same could be said, of course, about the possible effect of each of our other expenditures.

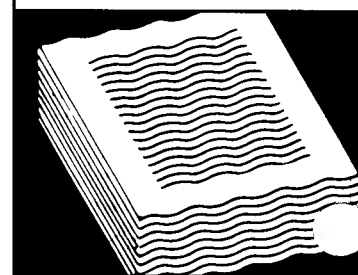
It has been my strong view that the importance we place on our non-academic staff, an importance I attempted to note earlier in this Report, justifies the additional investment of resources in them. In the final analysis one makes a value judgment. I have, and for that I must be held accountable. I am comforted by the words of Gandhi:

"There are moments in your life when you must act, even though you cannot carry your best friends with you. The 'still small voice' within you must always be the final arbiter when there is a conflict of duty."

In every year there are a number of highlights, and this year is proving to be no exception in this regard. As I mentioned to my non-academic staff colleagues when I was their guest at a meeting last month, for me one of the real achievements of not only this year but during my term as President occurred in late September when Brendon O'Neill, President of the Non-Academic Staff Association, and I signed a memorandum in which the University and the Association agreed to the provisions of the new classification and pay equity plan. Both Mr. O'Neill and I are grateful to colleagues who were involved in the negotiations under the leadership of Brian Caunt, Director, Personnel Services and Staff Relations, and Paul Leung, Manager, Non-Academic Staff Association.

This system will not solve all of the problems of our workplace and, indeed, we know that it, in turn, will create some new difficulties. I do believe, however, Mr. Chancellor, that the pay equity system, which will become effective on 1 April next, is a concrete indication of our determination not only to recognize the relative value of the many different support staff positions, but to underline as well the importance to this University of the hundreds of loyal, devoted, conscientious and committed members of the Non-Academic Staff Association and other members of the support staff. □

Currents



General Faculties Council

GFC's next meeting is scheduled for **Monday, 28 November, at 2 p.m.** in the University Hall Council Chamber.

1. Approval of the Agenda
2. Approval of the Minutes of 26 September 1988
3. Question Period
4. New Members of GFC 1988-89
- Reports
5. Executive Committee Report
 - 5.1 Executive Committee Minutes of 3 October 1988
 - 5.2 Executive Committee Minutes of 14 November 1988
6. Reports of the Board of Governors
7. Report of the Nominating Committee
8. GFC Facilities Development Committee (FDC): Oral Report
9. GFC Academic Development Committee (ADC): Oral Report
10. GFC Planning and Priorities Committee (PPC): Oral Report
11. Vice-President (Research)'s Research Policy Committee (RPC): Oral Report

Deferred From Previous Meeting

12. Composition of Committees and Eligibility to Serve: Revised Recommendations from the GFC Executive Subcommittee
- New Business*
13. Discipline Cases: Report to GFC on Number and Disposition of Cases
14. GFC Library Committee: Annual Report 1987-88
15. GFC Committee on Admissions and Transfer (CAT): Annual Report 1987-88
16. Transfer Admissions from Colleges and Universities: Recommendation from the GFC Committee on Admissions and Transfer (CAT)
17. GFC Undergraduate Teaching Awards Committee (UTAC): Annual Report 1987-88
18. Faculty of Engineering: Proposal to Increase the Term of Office for Department Chairs from Three to Four Years
19. General Appeals Committee (GAC): Annual Report 1987-88
20. GFC Undergraduate Scholarship Committee (USC): Annual Report 1987-88
21. Report on the Preparation of the 1988-89 Operating Budget
22. Operating Budget Principles, Policies and Procedures 1989-90: Recommendation from the Planning and Priorities Committee (PPC)
23. Composition of the GFC Executive Committee: Recommendation from the Director of the University Secretariat
- For Information*
24. Publication Provisions in Research Agreements Between the University of Alberta and Health and Welfare Canada
25. Systematic Reviews ("PACCR" Process): Recommendation from the President
26. Other Business

For information concerning this agenda, members of the University community may telephone the Secretary to GFC, 432-5430.

Nominations Invited for Faculty of Arts Undergraduate Teaching Awards

In the interests of recognizing excellence in teaching and to encourage teaching of the highest quality, the Faculty of Arts gives up to three Undergraduate Teaching Awards annually. The Faculty of Arts Undergraduate Teaching Awards Committee is interested in receiving nominations for this award. Permanent with at least five years of full-time teaching experience are eligible. Nominations can be made by students, colleagues and/or department chairs. Because each department is permitted only one nomination and documentation is required, interested persons should discuss possible nominations with the appropriate department chairs. The deadline is 16 January 1989. The committee also selects from the nominations it receives the Faculty of Arts' nominees for the University's Rutherford Awards for Excellence in Undergraduate Teaching.

Family Fun Sunday

Campus Recreation has scheduled another of its popular Family Fun Sundays for 27 November, 1:30 to 4 p.m. Activities will take place in the Pavilion with the exception of a recreational swim in the West Pool (3 p.m.) followed by cookies and juice. Persons interested in attending Family Fun Sunday are asked to call 432-2555 and indicate the number of people in their party. There is a registration fee of \$2 per family.

Talks

Anatomy and Cell Biology

24 November, noon. Gert Holstege, Department of Anatomy, University of California, San Francisco, "Limbic and Nucleus Accumbens Projections to the Spinal Cord." 6-28 Medical Sciences Building.
7 December, noon. Richard Murphy, "Protein Isolation: Chromatography and Gel Filtration." 6-28 Medical Sciences Building.

Soil Science

24 November, 12:30 p.m. J.M. Black, MSc candidate, "The Erodibility of Alberta Soil After Seeding." 2-36 Earth Sciences Building.
1 December, 12:30 p.m. K.W. Domier, "Seedbed Preparation." 2-36 Earth Sciences Building.

Limnology and Fisheries

24 November, 12:30 p.m. Jay Babin, "Evaluation of the Impact of Lime on the Water Quality of Edmonton's Storm Water Retention Lakes." M-149 Biological Sciences Centre.
1 December, 12:30 p.m. Jonathan Cole, Institute of Ecosystem Studies, Millbrook, New York, "Bacterial Production in Freshwater." M-149 Biological Sciences Centre.
9 December, 12:30 p.m. Henry Regier, University of Toronto, "Climate Warming and Aquatic Ecosystems." M-149 Biological Sciences Centre.

CITL

24 November, 2:30 p.m. William J. Close, St. Joseph's College, "My Fair Lady." 1-09 Business Building.

English

24 November, 3:30 p.m. Tilottama Rajan, Wisconsin, "The Eye/I and the Other: Self and Audience in Wordsworth's

Lyrical Ballads." 5-20 Humanities Centre.
25 November, 3 p.m. Nicole Brossard, "Writing and the Spiral." 5-20 Humanities Centre.

Science, Technology and Society

24 November, 4 p.m. David Wilson, "Risky Business: Assessing Potential Industrial Hazards." 1-09 Business Building.
1 December, 4 p.m. William Leiss, Department of Communication, Simon Fraser University, "Risk Communication: At the Intersection of Science and Society." 1-09 Business Building.

Entomology

24 November, 4 p.m. M. Eymann, "Clumping and Spacing by Simuliid Larvae." TBW-1 Tory Breezeway.
1 December, 4 p.m. P. Albert, Department of Biology, Concordia University, Montreal, "Spruce Budworm Feeding." TBW-1 Tory Breezeway.

Alliance Française d'Edmonton

24 November, 7:30 p.m. M. Gérard Mourgue, "Mythologie de Jean Cocteau, philosophe Pré-Socratique." Auditorium, Faculté Saint-Jean.

International Centre

25 November, noon. Kevin Flaherty, Edmonton Learner Centre, "Making a Difference: Canadian Unions in Mozambique."
28 November, noon. P.A. Rolland, "Study Opportunities in the Soviet Union." All events at 172 HUB International.

Women's Studies Program

25 November, noon. Anne Michaels, author of *A Weight of Oranges*, will read from her work.
25 November, 3 p.m. Nicole Brossard, author of *These Our Mothers*, *French Kiss*, *The Aerial Letter* and numerous other books of fiction, poetry and fiction-theory, will give a talk about writing and the feminist consciousness, "Moving Into the Spiral." Reception to follow. L-3 Humanities Centre.

St. Joseph's College

25 November, 2 p.m. Russell A. Pendergast, "A Christian Looks at the Free Trade Debate." Faculty Lounge, St. Joseph's College.

Zoology

25 November, 3:30 p.m. Barrie Gilbert, Department of Fish and Wildlife, Utah State University, "Behavioral Plasticity and Species Change in North American Grizzlies." M-149 Biological Sciences Building.
2 December, 3:30 p.m. Ray Rasmussen, Canadian Parks and Wilderness Society, "Where and Why of Protecting Heritage Areas." M-149 Biological Sciences Centre.
9 December, 3:30 p.m. Henry Regier, Department of Zoology, University of Toronto, "Some Effects of Climate Change on Fresh Water Fisheries." M-149 Biological Sciences Centre.

Law

26 November, 9:30 a.m. Saturday Morning at the Law School—"Medicine and the Law." Law Centre.

Slavic and East European Studies

28 November, 3 p.m. A. Reid, "Bakhtin, Medvedev, Voloshinov—Is Authorship a Question? The Question of Authorship: A Critical Survey." 436 Arts Building.

Rural Economy

28 November, 3:15 p.m. Charles Mataya, "Impact of Currency Devaluation on Agricultural Trade: A Research Proposal." 519 General Services Building.

Literary Theory

28 November, 4 p.m. Shirley Neuman, "Theory-Fiction and the Invention of the Woman Subject." 5-20 Humanities Centre.

Plant Science

29 November, 12:30 p.m. D. Guo, "Steroids—Do They Make Plants Grow Better?" 1-06 Agriculture-Forestry Centre.
2 December, 12:30 p.m. G.N.M. Kumar, "Calcium Involvement in Senescence." 1-06 Agriculture-Forestry Centre.
6 December, 12:30 p.m. H. Klein-Gebbinck, "Population Stability in Plant Mixtures in the Presence of Disease." 1-06 Agriculture-Forestry Centre.
9 December, 12:30 p.m. G. Dunn, "Specific Ion Effects on Plant Growth in Salt Affected Soils." 1-06 Agriculture-Forestry Centre.

Anthropology

29 November, 3:30 p.m. Joel Wilbush, "The Diagnostic Process: A Re-examination (Implications for Cultural and Medical Anthropology.)" 14-6 Tory Building.
30 November, noon. Ruth Gruhn and Alan Bryan, "New Excavations at Wilson Butte Cave, Idaho." 14-6 Tory Building.
6 December, 3:30 p.m. Pamela Brink, "The Cultural Aspects of Obesity." 14-6 Tory Building.
7 December, noon. James Woollett and Cynthia Zutter, "Farmers and Fishermen at 66 degrees North: Palaeoeconomic Research at the Medieval Farm of Svalbart, Iceland." 14-6 Tory Building.

Alberta Heritage Foundation for Medical Research

29 November, 4 p.m. Michal Opas, assistant professor of Anatomy, University of Toronto, "Regulation of Phenotypic Expression in Cultured Retinal Pigmented Epithelium by Biochemistry and Mechanics of the Substratum." 5-10 Medical Sciences Building.
6 December, 4 p.m. Jonathan Rothblatt, postdoctoral fellow, University of California at Berkeley, "Biochemical and Genetic Analysis of Protein Translocation into Endoplasmic Reticulum." 5-10 Medical Sciences Building.

Physics

30 November, 3:30 p.m. M. Kupczynski, University of Ottawa, "On the Scattering of Extended Hadrons." P-631 Physics Building.

Jewish-Christian Dialogue

1 December, 3:30 p.m. Rabbi Jacob Rosner, Beth Shalom Synagogue, "The Impact of the Israeli Election—The

Attitude of the Religious Parties." Faculty Lounge, St. Joseph's College.

Cross Cancer Institute

7 December, 12:15 p.m. Abdul Khaliq, "A Visit to a Nursing School in Pakistan." Auditorium, Cross Cancer Institute.

Biochemistry

7 December, 3:30 p.m. C.M. Kay, "Biophysical Chemistry and Its Utility in the Study of Structure-Function Relationships of Proteins," and Lawrence B. Smillie, "Structure-Function Relationships of Muscle Thin Filament Proteins." Bernard Snell Hall, Mackenzie Health Sciences Centre.

The Arts

Exhibitions Musée Héritage Museum

Until 4 December. "Art Nouveau in Fashion"—an exhibition of costumes from the University of Alberta Historic Costume collection. 459-1528. 5 St. Anne Street, St. Albert.

FAB Gallery

Until 11 December. "Louis Muhlstock: Drawings."
Until 11 December. "John Snow: Printmaker."

SUB Theatre

25 and 26 November, 8 p.m., and 27 November, 2 p.m. "The Lord of the Rings."
28 November, 8 p.m. Marcel Marceau.

Music

25 November, 8 p.m. Collegium Musicum Concert—Marnie Giesbrecht, director. Admission.
27 November, 3 p.m. Alta Nova Piano Trio Recital—Helmut Brauss, piano; Norman Nelson, violin; Tanya Prochazka, cello.
27 November, 8 p.m. Concert Choir Concert—Bruce Wheatcroft, director. Admission.
29 November, 8 p.m. Symphonic Wind Ensemble Concert—Fordyce Pier, director. Admission.
30 November, 8 p.m. Stage Band Concert—Neil Corlett, director. Admission.
2 December, 8 p.m. Madrigal Singers Concert—Robert DeFrece, director. Admission.
4 December, 3 p.m. Concert Band Concert—William H. Street, director. Admission.
4 December, 8 p.m. Faculty Recital with Tanya Prochazka, cello; Tatiana Warszynski, violin; and Marina Stolyar, piano.
6 December, 8 p.m. Chamber Orchestra Concert—Norman Nelson, conductor. Admission.
Performances in Convocation Hall. Cost of admission: \$5/adults, \$3/students and seniors.

Sports

Volleyball

25 and 26 November, 7:30 p.m. Pandas vs. Lethbridge.
2 to 4 December. North Am Tournament.

Gymnastics

27 November. Pandas and Golden Bears—Champagne Classic.
4 December. Pandas vs. Calgary.

Swimming

3 December. Golden Bears Invitational #1.

Positions

The University of Alberta is committed to the principle of equity in employment.

In accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Academic

Tenure-Track Position in Northern Ethnohistory

Applications are being accepted for a tenure-track position in Northern Ethnohistory at the Junior Assistant Professor level (\$33,144 current scale) to be jointly held in the Canadian Studies Program (two-thirds) and the Department of Anthropology (one-third) at the University of Alberta. The successful candidate will hold a PhD with clear evidence of research interests in the Canadian North and a willingness to develop and teach courses in ethnohistory from that region, and to place that ethnohistory within the larger Canadian context. A period of residence and/or work experience in the North would be an asset.

The closing date for applications is 15 February 1989, and the effective date of appointment is 1 July 1989. Curriculum vitae and names of at least three references should be sent to: Dr. Earle H. Waugh, Chairman, Selection Committee, Canadian Studies, 131 Trailer Complex #1, University of Alberta, Edmonton, Alberta T6H 2E2.

Manager (Job Classification and Compensation)

The University of Alberta is implementing a new job classification plan covering some 3,500 support staff positions ranging from junior clerical (secretarial/administrative) to senior technical to trades and maintenance. The Manager (Job Classification and Compensation) reports to the Director of Personnel and is responsible for the management of the University's pay equity/compensation plan.

Applicants should have significant experience with emphasis in job classification and/or compensation. Considerable management/supervisory experience is also required. The successful applicant must be able to effectively relate to all levels of University staff and management, as well as Union staff and executives.

The salary range for this position is \$33,620 to \$50,444 per annum. Appointment salary will be commensurate with qualifications and experience.

Interested applicants should apply by comprehensive résumé to Personnel Services and Staff Relations, 2-40 Assiniboia Hall, Edmonton, Alberta T6G 2E7.

Support Staff

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 432-5201. Due to publication lead time and the fact that positions are filled

on an ongoing basis, these vacancies cannot be guaranteed beyond 18 November. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

Clerk Typist II (Part-time, Trust), Medicine - Multiple Sclerosis Clinic, (\$656-\$815) (prorated)
Clerk Typist II (Part-time), Physical Plant, (\$766-\$950) (prorated)
Clerk Typist II, Faculty of Graduate Studies and Research, (\$1,276-\$1,584)
Clerk Steno III (Part-time), Genetics, (\$711-\$893) (prorated)
Clerk Steno III (Trust), Continuing Medical Education, (\$1,421-\$1,785)
Clerk Steno III, Animal Science, (\$1,421-\$1,785)
Clerk Steno III (Receptionist), Office of the Registrar, (\$1,421-\$1,785)
Clerk Steno III, Secondary Education, (\$1,421-\$1,785)
Clerk Typist III (Trust), Medical Microbiology and Infectious Diseases, (\$1,421-\$1,785)
Clerk Typist III (Receptionist), Office of the Comptroller (Payroll), (\$1,421-\$1,785)
Clerk Typist III, Housing and Food Services, (\$1,421-\$1,785)
Secretary, Computing Science, (\$1,584-\$2,023)
Medical Steno (Trust), Pediatrics, (\$1,584-\$2,023)
Payroll Clerk, Office of the Comptroller (Payroll), (\$1,584-\$2,023)
Accounts Clerk, Housing and Food Services, (\$1,584-\$2,023)
Departmental/Executive Secretary (Term to 30 June 1989), Office of the Dean of Dentistry, (\$1,785-\$2,297)
Departmental/Executive Secretary, Romance Languages, (\$1,785-\$2,297)
Housing Worker I, Housing and Food Services, (\$1,276-\$1,584)
Administrative Assistant I, (Part-time), Disabled Student Services, (\$1,012-\$1,306) (prorated)
Technician III, Geology, (\$2,109-\$2,730)
Typographical Tradesman III, Printing Services, (\$2,109-\$2,730)
Programmer Analyst II, University Computing Systems, (\$2,397-\$3,113)
Programmer Analyst II, Computer Engineering, (\$2,397-\$3,113)
Programmer Analyst III, University Computing Systems, (\$2,851-\$3,723)

For vacant Library positions, telephone 432-3790.

Advertisements

Accommodations available

Victoria properties - Experienced, knowledgeable realtor with Edmonton references will answer all queries, and send information. No cost or obligation. Call collect (604) 592-3666, Lois Dutton, Wessex Realty, Victoria, B.C.

Rent - Furnished, three-bedroom bungalow. Greenfield. July 1989-July 1990. 432-4475.

Sale - Garneau. Excellent University location, two storeys, three bedrooms, hardwood floors. New plumbing, wiring, furnace. Completely new kitchen, built-in appliances. \$149,900. 433-6475.

Rent - Prestigious Grandview, step from University. 1,500' bungalow overlooking University farm. Lucas, 466-6677.

Rent - Laurier Heights, three bedrooms, fully developed basement, heated garage, all appliances, ten minutes University. References. 483-5774.

Rent - Condominium. One bedroom, ground level with patio, five

appliances. Heated, underground parking. Just across the river from campus. 488-1167.

Rent - Starting January first, very nice house in Windsor Park. \$1,000. 439-3311.

Sale - Well-kept, three-bedroom, semi-bungalow. Two-bedroom suite down, total revenue \$850, fully occupied. Excellent investment. Patrick Grace, 438-5100, 438-5006, Royal LePage Realty.

Rent - Central, London, England. One-bedroom, furnished apartment for rent from 1 January 1989, \$1,200 per month. 439-4764.

Rent - Large, bright, modern, furnished/unfurnished basement suite. Walk to University. \$290. Quiet, non-smoker. 437-7922.

Rent - University Ave. Large house, fireplace, garage. Available immediately. \$750/month. References. Phone 437-3287.

Rent - Two rooms, for non-smoking women. Residential neighborhood, bus route to University. Light chores. Share kitchen, laundry. Cable. \$300 each. 466-7678 evenings.

Sale - Bright, open condominium in Riverbend, appliances, security, pool. \$78,500. Liz Crockford, Spencer Real Estate, 436-5250, 434-0555.

Sale - Estate sale. \$74,900. Good access to University. Possible suite. Call Chris Tenove, 433-5664, 436-5250. Spencer Realty.

Sale - Winterized cottage. By Wabamun Sailing Club. Secluded location. Chris Tenove, 433-5664, 436-5250. Spencer Realty.

Sale - \$19,500. Hubbles Lake. 4.38 acres. Chris Tenove, 433-5664, 436-5250. Spencer Realty.

Sale - Lakefront cottage. Wabamun, huge lot, fully furnished, super location. Call Chris Tenove, 433-5664, 436-5250. Spencer Realty.

Sale - Windermere. Only three large lots left. Financing available. Chris Tenove, 433-5664, 436-5250. Spencer Realty.

Sale/rent - Sunny, spacious, two-bedroom suite. Well-kept, high-rise condominium. Spectacular city view. Pool, sauna, five-minute ride to University. 15 December or later. \$74,000; \$600 rent. 482-4286.

Accommodations wanted

House-sitter available 15 December or 1 January. Experienced, references. 452-2571.

Quiet, non-smoking, graduate student requires one-bedroom or shared accommodation, washer/dryer. Leave message for Steven, 432-3337.

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